

WHAT IS CLAIMED IS:



1. A disc drive head positioning suspension comprising:
a base;
a load beam extending in a first plane having a first end and a second end, a longitudinal axis extending between the first end and the second end of the load beam, and a transverse axis extending perpendicular to the longitudinal axis within the first plane; and
a bend section connecting the base to the second end of the load beam, the bend section including a transverse axis aligned parallel to the transverse axis of the load beam, and a longitudinal axis parallel to the load beam longitudinal axis;
wherein the bend section comprises a plate having a width and a rail extending along the plate parallel to the transverse axis of the bend section, and wherein the rail extends out of the first plane.

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2. The suspension of claim 1 wherein the rail extends in two different planes.

3. The suspension of claim 1 wherein the rail has a width, a thickness, and a length, and wherein the width of the rail is substantially similar to the width of the base plate.

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4. The suspension of claim 2 wherein the bend section rail extends in a direction substantially normal to the first plane.

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5. The suspension of claim 4 wherein the bend section comprises a second rail, the first and second rails being separated in the longitudinal axis direction of the bend section, the rails forming an open channel.

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6. The suspension of claim 5 wherein a cross-section of the open channel is substantially U-shaped.

7. The suspension of claim 5 wherein either the first rail or the second rail comprises two segments along its width.

8. The suspension of claim 3 wherein the base plate of the bend section has a thickness and wherein the rail length is substantially greater than the thickness of the bend section.

9. The suspension of claim 3 wherein a cross-section of the open channel is substantially circular.

10. The suspension of claim 3 wherein a portion of the bend section and rail is removed on one side of the longitudinal axis.

11. The suspension of claim 3 wherein the load beam has a width centered about the longitudinal axis, and wherein the rail width is greater than the width of the load beam and no wider than the width of the base plate.

12. The suspension of claim 3 wherein the load beam has a width centered about the longitudinal axis, and wherein the rail width is less than the width of the load beam.

13. A suspension member comprising:
a plate extending in a first plane, the plate having a width centered about a longitudinal axis of the plate; and
a rail coupled to the plate, the rail extending along the plate parallel to a transverse axis of the plate; and
wherein the rail extends in a second plane wherein the second plane is different than the first plane.

14. The suspension member of claim 13 wherein the second plane is perpendicular to the first plane.

15. The suspension member of claim 13 wherein the second plane is at an angle less than 90° from the first plane.

5 16. The suspension member of claim 13 wherein the second plane is at an angle greater than 90° from the first plane.

17. The suspension member of claim 13 wherein a second rail is coupled to the plate wherein the second rail extends in a third plane wherein the third plane is 10 different than the first plane.

18. The suspension member of claim 17 wherein the second plane and third plane are curved.

15 19. A head suspension comprising:
a base;
a load beam; and
a bend section having a first end and a second end, the first end being coupled to the load beam and the second end being coupled to the base;
20 wherein the bend section comprises a plate extending in a first plane and a rail coupled to the plate wherein the rail extends in a second plane wherein the first plate is different from the first plane.

20. A suspension member comprising:
25 a base extending in a first plane;
a load beam extending in a first plane; and
means coupling the base and load beam for maximizing translational stiffness of the load beam in a direction out of the first plane while minimizing rotational stiffness of the load beam.

